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Amendments to the Claims:

A clean version of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121(c)(3). This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) In a wireless communication system, wherein a paging channel, a quick paging channel, and a pilot channel are employed to transmit messages from a base station to a mobile station, the quick paging channel including first and second page indicators, a method comprising the steps of:

determining if the strength of a first pilot signal is smaller than a first threshold value, the first pilot signal residing in the pilot channel and being associated with the first page indicator;

determining if the strength of the first pilot signal is larger than a second threshold value, the first threshold value being larger than the second threshold value;

determining if the strength of a second pilot signal is smaller than the first threshold value, the second pilot signal residing in the pilot channel and being associated with the second page indicator;

determining if the strength of the second pilot signal is larger than the second threshold value;

if the strength of the first pilot signal is not smaller than the first threshold value, processing the first page indicator, and determining if the first page indicator is detected to be on;

if the strength of the first pilot signal is smaller than the first threshold value, and if the strength of the first pilot signal is larger than the first second threshold value, saving a first soft decision for the first page indicator;

if the strength of the first pilot signal is smaller than the first threshold value, and if the strength of the second pilot signal is not smaller than the first threshold

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value, processing the second page indicator, and determining if the second page indicator is detected to be on; and

if the strength of the first pilot signal is smaller than the first threshold value, and if the strength of the second pilot signal is larger than the second threshold value, saving a second soft decision for the second page indicator, combining the first and the second soft decisions to obtain a combined decision, and determining if the combined decision is on.

2. (Currently Amended) The method of Claim 1, further comprising the steps of:

if the strength of the first pilot signal is not smaller than the first threshold value, and if the first page indicator is detected to be on, decoding a subsequent paging channel slot;

if the strength of the first pilot signal is not smaller than the first threshold value, and if the first page indicator is detected to be off, switching the mobile station to a sleep mode;

if the strength of the first pilot signal is smaller than the first threshold value, if the strength of the second pilot signal is not smaller than the first threshold value, and if the second page indicator is detected to be on, decoding the subsequent paging channel slot;

if the strength of the first pilot signal is smaller than the first threshold value, if the strength of the second pilot signal is not smaller than the first threshold value, and if the second page indicator is detected to be off, switching the mobile station to a sleep mode;

if the strength of the first pilot signal is smaller than the first threshold value, and if the strength of the second pilot signal is not larger than the second threshold value, decoding the subsequent paging channel slot;

if the strength of the first pilot signal is smaller than the first threshold value, if the strength of the second pilot signal is larger than the second threshold value, and if the combined decision is on, decoding the subsequent paging channel slot; and

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if the strength of the first pilot signal is smaller than the first threshold value, if the strength of the second pilot signal is larger than the second threshold value, and if the combined decision is off, switching the mobile station to a sleep mode.

3. (Original) The method of Claim 1, wherein the first and the second page indicators are separated from each other by at least 20ms in time domain.

4. (Original) The method of Claim 1, wherein the first and the second page indicators are optimized using a computer simulation.

5. (Original) The method of Claim 1, wherein the first and the second page indicators each consists of a bit.

6. (Currently Amended) In a wireless communication system, wherein a paging channel, a quick paging channel, and a pilot channel are employed to transmit messages from a base station to a mobile station, the quick paging channel including first and second page indicators, the pilot channel including first and second pilot signals, the first pilot signal being associated with the first page indicator, the second pilot signal being associated with the second page indicator, a method comprising the steps of:

determining if the strength of the first pilot signal is smaller than a first threshold value;

determining if the strength of the first pilot signal is larger than a second threshold value, the first threshold value being larger than the second threshold value;

determining if the strength of the second pilot signal is smaller than the first threshold value;

determining if the strength of the second pilot signal is larger than the second threshold value;

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if the strength of the first pilot signal is not smaller than the first threshold value, processing the first page indicator, and determining if the first page indicator is detected to be on;

if the strength of the first pilot signal is not smaller than the first threshold value, and if the first page indicator is detected to be on, decoding a subsequent paging channel slot;

if the strength of the first pilot signal is not smaller than the first threshold value, and if the first page indicator is detected to be off, switching the mobile station to a sleep mode;

if the strength of the first pilot signal is smaller than the first threshold value, and if the strength of the first pilot signal is larger than the ~~first~~ second threshold value, saving a first soft decision for the first page indicator;

if the strength of the first pilot signal is smaller than the first threshold value, and if the strength of the second pilot signal is not smaller than the first threshold value, processing the second page indicator, and determining if the second page indicator is detected to be on;

if the strength of the first pilot signal is smaller than the first threshold value, if the strength of the second pilot signal is not smaller than the first threshold value, and if the second page indicator is detected to be on, decoding the subsequent paging channel slot;

if the strength of the first pilot signal is smaller than the first threshold value, if the strength of the second pilot signal is not smaller than the first threshold value, and if the second page indicator is detected to be off, switching the mobile station to a sleep mode;

if the strength of the first pilot signal is smaller than the first threshold value, and if the strength of the second pilot signal is not larger than the second threshold value, decoding the subsequent paging channel slot;

if the strength of the first pilot signal is smaller than the first threshold value, and if the strength of the second pilot signal is larger than the second threshold value, saving a second soft decision for the second page indicator, combining the

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first and the second soft decisions to obtain a combined decision, and determining if the combined decision is on;

if the strength of the first pilot signal is smaller than the first threshold value, if the strength of the second pilot signal is larger than the second threshold value, and if the combined decision is on, decoding the subsequent paging channel slot; and

the strength of the first pilot signal is smaller than the first threshold value, if the strength of the second pilot signal is larger than the second threshold value, and if the combined decision is off, switching the mobile station to a sleep mode.

7. (Original) The method of Claim 6, wherein the first and the second page indicators are separated from each other by at least 20ms in time domain.

8. (Original) The method of Claim 6, wherein the first and the second page indicators are optimized using a computer simulation.

9. (Original) The method of Claim 6, wherein the first and the second page indicators each consists of a bit.

10. (Original) A wireless communication system comprising:
a base station and at least one mobile station in communication to define:
    a paging channel;
    a quick paging channel;
    first and second page indicators within the quick paging channel; and
one or more processors implemented in the at least one mobile station for comparing the pilot strength for the first page indicator with first and second threshold values, for comparing the pilot strength for the second page indicator with the first and the second threshold values, and for determining if the first and the second page indicators are reliably transmitted from the base station to the at least one mobile station, based on the pilot strength for the first and the second page indicators relative to the first and the second threshold values.

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11. (Original) The wireless communication system of Claim 10, wherein the first and the second page indicators are separated from each other by at least 20ms in time domain.

12. (Original) The wireless communication system of Claim 10, wherein the first and the second page indicators are optimized using a computer simulation.

13. (Original) The wireless communication system of Claim 10, wherein the first and the second page indicators each consists of a bit.

14. (Original) The wireless communication system of Claim 10, wherein the one or more microprocessors are implemented in the mobile station.

15. (Original) The wireless communication system of Claim 10, wherein the base station and the at least one mobile station in communication further defines a pilot channel carrying first and second pilot signals, wherein the received energy of the first pilot signal represents the pilot strength for the first page indicator, and wherein the received energy of the second pilot signal represents the pilot strength for the second page indicator.

16. (Original) In a wireless communication system, wherein a paging channel, a quick paging channel, and a pilot channel are employed to transmit messages from a base station to a mobile station, the quick paging channel including first and second page indicators, a method comprising the steps of:
comparing the pilot strength for the first page indicator with first and second threshold values;
comparing the pilot strength for the second page indicator with the first and the second threshold values; and

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determining if the first and the second page indicators are reliably transmitted from the base station to the mobile station, based on the pilot strength for the first and the second page indicators relative to the first and the second threshold values.

17. (Currently Amended) In a wireless communication system, wherein a paging channel, a quick paging channel, and a pilot channel are employed to transmit messages from a base station to a mobile station, the quick paging channel including first and second page indicators, the mobile station comprising:

processor means for determining if the strength of a first pilot signal is smaller than a first threshold value, the first pilot signal residing in the pilot channel and being associated with the first page indicator;

processor means for determining if the strength of the first pilot signal is larger than a second threshold value, the first threshold value being larger than the second threshold value;

processor means for determining if the strength of a second pilot signal is smaller than the first threshold value, the second pilot signal residing in the pilot channel and being associated with the second page indicator;

processor means for determining if the strength of the second pilot signal is larger than the second threshold value;

processor means for processing the first page indicator, and determining if the first page indicator is detected to be on, if the strength of the first pilot signal is not smaller than the first threshold value;

processor means for saving a first soft decision for the first page indicator, if the strength of the first pilot signal is smaller than the first threshold value, and if the strength of the first pilot signal is larger than the first-second threshold value;

processor means for processing the second page indicator, and determining if the second page indicator is detected to be on, if the strength of the first pilot signal is smaller than the first threshold value, and if the strength of the second pilot signal is not smaller than the first threshold value; and

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processor means for saving a second soft decision for the second page indicator, combining the first and the second soft decisions to obtain a combined decision, and determining if the combined decision is on, if the strength of the first pilot signal is smaller than the first threshold value, and if the strength of the second pilot signal is larger than the second threshold value.

18. (Currently Amended) The mobile station of Claim 17, further comprising:

processor means for decoding a subsequent paging channel slot, if the strength of the first pilot signal is not smaller than the first threshold value, and if the first page indicator is detected to be on;

processor means for switching the mobile station to a sleep mode, if the strength of the first pilot signal is not smaller than the first threshold value, and if the first page indicator is detected to be off;

processor means for decoding the subsequent paging channel slot, if the strength of the first pilot signal is smaller than the first threshold value, if the strength of the second pilot signal is not smaller than the first threshold value, and if the second page indicator is detected to be on;

processor means for switching the mobile station to a sleep mode, if the strength of the first pilot signal is smaller than the first threshold value, if the strength of the second pilot signal is not smaller than the first threshold value, and if the second page indicator is detected to be off;

processor means for decoding the subsequent paging channel slot, if the strength of the first pilot signal is smaller than the first threshold value, and if the strength of the second pilot signal is not larger than the second threshold value;

processor means for decoding the subsequent paging channel slot, if the strength of the first pilot signal is smaller than the first threshold value, if the strength of the second pilot signal is larger than the second threshold value, and if the combined decision is on; and

processor means for switching the mobile station to a sleep mode, if the strength of the first pilot signal is smaller than the first threshold value, if the strength

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of the second pilot signal is larger than the second threshold value, and if the combined decision is off~~, switching the mobile station to a sleep mode~~.

19. (Original) The mobile station of Claim 17, wherein the first and the second page indicators are separated from each other by at least 20ms in time domain.

20. (Original) The mobile station of Claim 17, wherein the first and the second page indicators are optimized using a computer simulation.

21. (Original) The mobile station of Claim 17, wherein the first and the second page indicators each consists of a bit.

22. (Currently Amended) In a wireless communication system, wherein a paging channel, a quick paging channel, and a pilot channel are employed to transmit messages from a base station to a mobile station, the quick paging channel including first and second page indicators, the mobile station comprising:

processor means for determining if the strength of a first pilot signal is smaller than a first threshold value, the first pilot signal residing in the pilot channel and being associated with the first page indicator;

processor means for determining if the strength of the first pilot signal is larger than a second threshold value, the first threshold value being larger than the second threshold value;

processor means for determining if the strength of a second pilot signal is smaller than the first threshold value, the second pilot signal residing in the pilot channel and being associated with the second page indicator;

processor means for determining if the strength of the second pilot signal is larger than the second threshold value;

processor means for processing the first page indicator, and determining if the first page indicator is detected to be on, if the strength of the first pilot signal is not smaller than the first threshold value;

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processor means for saving a first soft decision for the first page indicator, if the strength of the first pilot signal is smaller than the first threshold value, and if the strength of the first pilot signal is larger than the ~~first~~ second threshold value;

processor means for processing the second page indicator, and determining if the second page indicator is detected to be on, if the strength of the first pilot signal is smaller than the first threshold value, and if the strength of the second pilot signal is not smaller than the first threshold value;

processor means for saving a second soft decision for the second page indicator, combining the first and the second soft decisions to obtain a combined decision, and determining if the combined decision is on, if the strength of the first pilot signal is smaller than the first threshold value, and if the strength of the second pilot signal is larger than the second threshold value;

processor means for decoding a subsequent paging channel slot, if the strength of the first pilot signal is not smaller than the first threshold value, and if the first page indicator is detected to be on;

processor means for switching the mobile station to a sleep mode, if the strength of the first pilot signal is not smaller than the first threshold value, and if the first page indicator is detected to be off;

processor means for decoding the subsequent paging channel slot, if the strength of the first pilot signal is smaller than the first threshold value, if the strength of the second pilot signal is not smaller than the first threshold value, and if the second page indicator is detected to be on;

processor means for switching the mobile station to a sleep mode, if the strength of the first pilot signal is smaller than the first threshold value, if the strength of the second pilot signal is not smaller than the first threshold value, and if the second page indicator is detected to be off;

processor means for decoding the subsequent paging channel slot, if the strength of the first pilot signal is smaller than the first threshold value, and if the strength of the second pilot signal is not larger than the second threshold value;

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processor means for decoding the subsequent paging channel slot, if the strength of the first pilot signal is smaller than the first threshold value, if the strength of the second pilot signal is larger than the second threshold value, and if the combined decision is on; and

processor means for <u>switching the mobile station to a sleep mode</u>, <u>if</u> the strength of the first pilot signal is smaller than the first threshold value, if the strength of the second pilot signal is larger than the second threshold value, and if the combined decision is off~~, switching the mobile station to a sleep mode~~.

23. (Original) The mobile station of Claim 22, wherein the first and the second page indicators are separated from each other by at least 20ms in time domain.

24. (Original) The mobile station of Claim 22, wherein the first and the second page indicators are optimized using a computer simulation.

25. (Original) The mobile station of Claim 22, wherein the first and the second page indicators each consists of a bit.